

ABSTRACT.

A method and system for high resolution formatting of video images and dynamically adjusting the transmission resolution of the high-resolution images is presented. The method first downscales the high-resolution images and encodes the downscaled images into base layer frames. Quality enhancement layer data is generated from the downscaled video images and the encoded data contained in corresponding base layer frames. The quality enhancement layer data is encoded into quality enhancement layer frames. The data contained in the base layer frames and corresponding quality layer frames are then upsampled and spatial scalability data is determined from the upsampled data and the original image. The spatial scalability data is then encoded into spatial scalability data. During transmission of the encoded video image, each available encoded frame is transmitted using different amounts or portions of the enhancement layers so as to occupy the available bandwidth.